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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/517,906

11/07/2005

Andrew Miller Cameron

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20411 7590 11/17/2008
The BOC Group, Inc.
575 MOUNTAIN AVENUE
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EXAMINER

YANG, JIE

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

11/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	<p>Application No. 10/517,906</p>	<p>Applicant(s) CAMERON ET AL.</p>	
	<p>Examiner JIE YANG</p>	<p>Art Unit 1793</p>	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 05 November 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: _____.
- Claim(s) objected to: _____.
- Claim(s) rejected: _____.
- Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/Roy King/
Supervisory Patent Examiner, Art Unit 1793

JY

Continuation of 3. Note: The amended features : "...exothermically reacting the molecular oxygen with carbon in the melt;" and "...the velocity of the second supersonic gas jet being from 10% less to 10% greater than the velocity of the first supersonic gas jet" in the proposed claim1 were not contained in the finally rejected claim.

Continuation of 11. does NOT place the application in condition for allowance because: in the instant proposed claim1, the Applicants added new limitations: "...exothermically reacting the molecular oxygen with carbon in the melt;" and "...the velocity of the second supersonic gas jet being from 10% less to 10% greater than the velocity of the first supersonic gas jet", the proposed features were not included in the finally rejected claim and it would require further consideration/search.

In the Applicant's remarks, the Applicant argues: A) mahoney (EP 1092785) teaches against speeds which are similar, as in Schlichting (US 5366537). Therefore these two references are not properly combinable; B) Curr (US 4426223) makes no suggestion of injecting the "fines" into a molten ferrochromium; C) Mahoney teaches that it is desirable to have the second gas jet travel at a speed which is lower than that of the first jet (100 to 1000 fps versus 1,000 to 8,000 fps, resulting in a possible 800% difference between the speeds of the two streams), and therefore teaches away from the gas jets traveling at similar speeds (i.e, within 10% as recited in the proposed claim).

In response, regarding arguments A) and B), the applicant's arguments are against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case, Mahoney (EP 1092785) in view of Schlichting (US 5366537) and further in view of Curr (US 4426223) or Higuchi (JP 08-092627), or Yamamoto (JP 62230953) teaches the limitations of independent claim 1. Mahoney (EP 1092785) teaches injecting metal oxide particles into a liquid such as molten metal; Schlichting (US 5366537) teaches supersonic speed injecting; Curr (US 4426223) or Higuchi (JP 08-092627), or Yamamoto (JP 62230953) teaches adding particles into ferroalloy. The motivations for combining these references can refer to office action marked 1/17/2008. As pointed out in the previous office action marked 1/17/2008. Regarding the speed difference between Mahoney (EP 1092785) in view of Schlichting (US 5366537) in arguments A) to C), the Examiner disagree with the Applicant's argument, firstly, the asserted limitation of the gas jets traveling at similar speeds i.e, within 10% as recited in the proposed claim was not contained in the finally rejected claim; Secondly, from the speed range (100 to 1000 fps versus 1,000 to 8,000 fps) as disclosed by Mahoney (EP 1092785), it would have been obvious to one of the skilled in the art to pick both first and second injecting speeds around 1,000 fps, which meets the limitation as recited in the proposed claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-2701884. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.